

second adhesive layer.

REMARKS

Applicant responds to the Office Action of April 26, 2002, in which claims 1-74 are pending in the application. Claims 53-74 have been withdrawn from consideration. Upon entry of the foregoing amendment, claims 1-29 and 32-95 will be pending in the application.

The Examiner has restricted the claims in the present application under 35 U.S.C. §121 as follows:

Group I. Claims 1-52, drawn to an adhesive article with improved air egress, classified in class 428, subclass 343.

Group II. Claims 53-74 drawn to an adhesive article with non-adhesive on the release liner, classified in class 428, subclass 40.1.

Applicant affirms election of Group I, claims 1-52, with traverse.

Rejection of Claims 1-26 under 35 U.S.C. §112

Claims 1-26 have been rejected under 35 U.S.C. §112, first paragraph, as being based on a disclosure that is not enabling. The Examiner contends that a route for air bubbles to egress is critical or essential to the practice of the invention and that this feature is not incorporated into independent claim 1, and further is not enabled by the disclosure. Additionally, the Examiner questions the feasibility of forming the air egress routes as illustrated in Figure 3C, although this feature is not recited in the claims.

Applicant respectfully disagrees with the Examiner's contention. Applicant has not characterized a route for air bubbles as "critical or essential" to the adhesive article of the present invention. Rather, Applicant has described the adhesive article of the present invention as providing one or more of air egress, repositionability and slideability for easy application to a substrate. (See page 2, lines 11-12 and page 3, lines 16-17.) Furthermore, the specification contains a written description that enables the article recited in claim 1. Applicant directs the Examiner's attention, for example, to paragraph 52 on pages 14-15

wherein one embodiment of the article of claim 1 is described:

In another embodiment, illustrated in Figure 3a, an adhesive article 30 having improved air egress is provided by simultaneously printing and embedding a pattern of non-adhesive areas 33 into the surface of an adhesive 32 on a release liner 34. Using flexographic printing techniques, a pattern, such as diamonds, is printed into the exposed surface of an adhesive 32 on a release liner 34. The non-adhesive material 33 is a non-adhesive resin which upon drying, cooling, and/or curing maintains its shape. The printing technique embeds the print into the soft surface of the adhesive 32, leaving channels 35 with most of the printing compound on the bottom of the channels. Thus, the top surface of the printing compound 33 is below the plane of the upper surface of the adhesive layer 32. The non-adhesive material 33 is chosen from those materials that prevent the adhesive from flowing back into the channels 35 created by the printing process. Examples of such non-adhesive materials include hard PMMA, or a two component urethane. Referring to Figure 3b, the printed adhesive 32 with channels 35 is transferred by lamination to a facestock 31, maintaining the channels in the adhesive.

Therefore, the specification clearly describes the article of claim 1. With regard to the Examiner's question as to the feasibility of forming air egress routes, it appears that the Examiner has based his rejection of claims 1-26 on an unsupported statement that a feature not recited in the claims, is not enabled by the disclosure. Stated another way, the Examiner contends that a feature not recited in the claims is not enabled. Applicant respectfully submits that such a basis for rejection is improper. Because the adhesive article recited in claims 1-26 is fully supported in the specification, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-26 based on 35 U.S.C. §112, first paragraph.

Rejection of Claims 27, 36, 42 and 49 under 35 U.S.C. §102(b)

Claims 27, 36, 42 and 49 have been rejected under 35 U.S.C. §102(b) as being anticipated by Rusincovitch et al. (US Pat. No. 5,675,787). The Examiner contends that Rusincovitch discloses a wall covering having an adhesive coating adhered to the backside of the wall covering substrate, with a release sheet releasably attached to the adhesive coating. Non-adhesive spacers made of dried ink are included in the adhesive

coating, and are flush with the adhesive layer.

Applicant has amended claim 27 to recite an adhesive article having a pattern of non-adhesive material forms embedded into the lower surface of the adhesive layer, each of the non-adhesive material forms having a bottom surface, wherein the bottom surface of the non-adhesive material forms are above the plane of the lower surface of the adhesive layer. Rusincovitch teaches an adhesive layer coated on a layer of non-adhesive spacers releasably attached to a release sheet such that removal of the release sheet yields a surface in which spacers are flush with or protrude slightly from the surface of the adhesive. (See column 9, lines 43-45 and lines 51-55). Accordingly, Rusincovitch does not anticipate the claims.

Furthermore, it would not have been obvious to modify the wall covering of Rusincovitch to include non-adhesive spacers having a lower surface above the plane of the bottom surface of the adhesive layer. The method by which the wall covering of Rusincovitch is produced could not have produced Applicant's claimed adhesive article. Specifically, because an adhesive is first coated over the spacers and the adhesive layer with the spacers printed thereon is transferred to the wall covering substrate, the bottom surface of the spacers could not have been positioned above the plane of the lower surface of the adhesive layer as illustrated in Figures 4a and 4b of the present application. In view of the amendment to claim 27 and the foregoing remarks, Applicant respectfully requests withdrawal of the rejection of claim 27, 36, 42 and 49.

Rejection of Claims 28-29, 32-33, 37-41 and 50-52 under 35 U.S.C. §103 (a)

Claims 28-29, 32-33, 37-41 and 50-52 have been rejected under 35 U.S.C. §103 (a) as being unpatentable over Rusincovitch et al. With regard to claim 28, the Examiner contends that based on the Rusincovitch teaching of non-adhesive spacers having a thickness of about 0.05 mils to 0.5 mils (1.27 microns - 12.7 microns), it would have been obvious to include non-adhesive materials forms having a thickness of 30 nanometers to 100 microns. With regard to claim 29, the Examiner has "taken Official notice" that UV curable inks would have been an obvious choice to one of ordinary skill in the art. With regard to claims 37-41 and 50-52, the Examiner has again "taken Official notice" that:

- (1) using heat activated adhesive as in claim 37 to obtain enhanced adhesive

strength,

(2) using porous non-adhesive material such as polymeric foams as in claims 38-39,

(3) winding the adhesive sheet into a roll with a facestock having a release surface as in claims 40 and 41,

(4) printing and embedding a non-adhesive material into the release liner surface as in claims 50, and

(5) making double sided adhesive sheets as in claim 51-52 are common knowledge in the art and are therefore obvious in light of Rusincovitch et al.

Applicant respectfully submit that each of claims 28-29, 32-33, 37-41 and 50-52, which depend from amended claim 27 are not obvious based on the teachings of Rusincovitch. Specifically, claim 27, as amended, recites that the non-adhesive material forms are embedded into the adhesive layer so that the bottom of the non-adhesive material forms is above the plane of the lower surface of the adhesive layer. Furthermore, with regard to the rejection of claims 29, 37-41, and 50-52 and the Examiner's "Official notice" of obviousness, Applicant respectfully submit that the Examiner has failed to establish a prima facie case of obviousness. Under *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), as codified in MPEP §706.02, in order to establish a prima facie case of obviousness the Patent Office must:

- (1) set forth the differences in the claim over the applied references;
- (2) set forth the proposed modification of the references which would be necessary to arrive at the claimed subject matter; and
- (3) explain why the proposed modifications would be obvious.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on

hot
air

applicant's disclosure. MPEP §706.02(j), *In re Vaek*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

With regard to claims 29, 37-41, and 50-52, the Examiner has failed to explain why one skilled in the art, at the time the invention was made, would have been motivated to modify the adhesive wallcovering of Rusincovitch to form the non-adhesive material forms from UV curable ink when Rusincovitch specifically teaches ink that are not sticky or tacky upon drying (Col. 10, lines 31-32 and 35), employ a heat-activated adhesive when Rusincovitch specifically teaches pressure sensitive adhesives that "exhibit sufficient initial tackiness to cause the decorative sheet to aggressively adhere to the wall" (Col. 7, lines 59-62) and make a double sided tape when Rusincovitch is specifically limited to decorative wall coverings (entire patent). In order to satisfy step (3) above, the Examiner must identify where the prior art provides a motivating suggestion to make the modifications. *In re Jones*, 958 F.2d 347, 21 USPQ 2d 1941 (Fed. Cir. 1992).

In view of the amendment to claim 27 and in view of the foregoing remarks with regard to claims 28-29, 32-33, 37-41 and 50-52, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. §103 (a) of claims 28-29, 32-33, 37-41 and 50-52.

Rejection of Claims 30-31 under 35 U.S.C. 103(a)

Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al. either individually or in view of Murai et al. (U.S. Pat No. 5,853,862). In view of the cancellation of claims 30 and 31, this rejection is moot.

Rejection of Claims 34 and 35 under 35 U.S.C. 103(a)

Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rusincovitch et al in view of GB 1,511,060. Specifically, the Examiner contends that the grid pattern taught by GB '060 would be an obvious modification of Rusincovitch's non-adhesive spacers to successfully obtain the air egress property of claims 34 and 35.

Applicant respectfully disagrees with the Examiner's contention. GB '060

teaches an article with improved degassing properties comprised of an air impermeable plastic sheet and an underlying adhesive. The shape of the adhesive on the edge that adheres to a surface consists of elongated ridges and or recessions. Degassing of the article occurs when the adhesive layer is exposed to pressure and heat so that the adhesive layer collapses on the air spaces and conforms to a surface. GB '060 does not teach or suggest that patterned shapes could be made with non-adhesive material or that non adhesive material forms would be desirable. In fact, the reference would discourage the use of non-adhesive material forms because GB '060 teaches that the patterns must collapse during the application so that the molten adhesive surface achieves a uniform thickness and smooth edge void of any preexisting pattern. Further, as discussed above, claim 27 has been amended to recite that non-adhesive material forms embedded in an adhesive layer are above the plane of the lower surface of the adhesive layer. Rusincovitch et al. fails to disclose, teach or suggest the adhesive article of claim 27, and the adhesive articles of claims 34 and 35 which depend from claim 27. GB '060 adds nothing to the teachings of Rusincovitch whereby material forms embedded as in claim 27 would be desirable. For these reasons, Applicant respectfully submits that the rejection of claims 34 and 35 has been overcome and respectfully requests withdrawal of the rejection.

Rejection of Claims 43-46 under 35 U.S.C. § 103(a)

Claims 43-46 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rusincovitch et al. in view of JP 59-53787. The Examiner contends that it would have been obvious to modify Rusincovitch's flat release liner with a textured release liner to obtain a smooth adhesive surface free of trapped air bubbles.

Applicant respectfully disagrees with the Examiner's contention. As discussed above, claim 27, from which claims 43-46 depend, has been amended to recite that the non-adhesive material forms are above the plane of the lower surface of the pressure sensitive adhesive. This design is discouraged by Rusincovitch et al. Furthermore, Rusincovitch teaches that the surface of the release liner is flat. (Col. 3, lines 21-25, and col. 6, lines 32-34.) Rusincovitch specifies a flat surface "that has no surface irregularities such as dimples or protrusions" (col. 6, lines 57-59) because the non-adhesive ink spacers

are printed directly on the flat surface of the release liner. (Col. 11, lines 11-14.) Because Rusincovitch teaches away from the incorporation of a release liner having a non-flat, textured surface there is no motivation to combine the teaching of JP '787 with that of Rusincovitch to modify the adhesive wallcovering of Rusincovitch. Even if such modification were made, it would not result in the adhesive article as claimed by Applicant. Claims 43-46 are directed to an adhesive article in which the non-adhesive material forms are above the plane of the lower surface of the pressure sensitive adhesive. The adhesive article of claims 43-46 would not have been obvious at the time of the invention based on the combination of Rusincovitch and JP '787. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claims 43-46 under 35 U.S.C. §103(a) based on Rusincovitch in view of JP 59-53787.

Rejection of Claims 47-48 under 35 U.S.C. §103(a)

Claims 47-48 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Rusincovitch et al. in view of Danielson et al. (US 3,331,729). The Examiner contends that it would have been obvious to randomly distribute non-adhesive particulate material on, and to embed particulate material into the release liner as taught by Danielson et al. (U.S. 3,331,729). The Examiner contends that the motivation results from the desire to obtain repositionability of the adhesive sheet.

Claims 47-48, which depend from amended claim 27, include the limitation that the adhesive material forms are embedded above the plane of the lower adhesive surface. As previously discussed, Rusincovitch employs non-adhesive spacers protruding from or flush with the adhesive layer, and further, teaches away from non-adhesive material embedded within the adhesive layer above the lower surface of the adhesive layer. The Examiner admits that Rusincovitch is silent with regard to the random distribution of non-adhesive particulate material on or embedded within the release liner. Danielson et al. place non-adhesive microballoons on the surface of a carrier web such that when the carrier web is removed, the microballoons protrude from the surface of the adhesive in a manner similar to Rusincovitch's spacers. Nothing in Danielson et al. teaches or suggests that the use of non-adhesive particulate material on or embedded within the release liner would be

desirable in conjunction with non-adhesive material forms embedded above the lower plane of an adhesive layer. Therefore, it could not have been obvious based on the disclosure of Rusincovitch, in view of Danielson, to include randomly distributed particulate material into an adhesive layer having non-adhesive material embedded below the surface of the adhesive layer. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 47-48 under 35 U.S.C. §103(a) based on Rusincovitch in view of Danielson.


Applicant has added new claims 75-95 directed to an adhesive article having a pattern of non-adhesive material forms embedded into the lower surface of the adhesive layer wherein the bottom surfaces of the non-adhesive forms are even with the plane of the lower surface of the adhesive layer and wherein the pattern of non-adhesive forms is applied by vacuum metalization or sputtering. Support for these claims is found in paragraphs 20 and 38, as well as throughout the specification. It could not have been obvious to one of ordinary skill in the art at the time the invention was made to apply a pattern of non-adhesive material forms by vacuum metalization or sputtering based on the disclosure of Rusincovitch (U.S. 5,676,787) because Rusincovitch teaches that the non-adhesive material is limited to materials that can be used as the ink on a printing machine (Col. 10, lines 29-31), and further, that applying the non-adhesive material directly to the adhesive layer is to be avoided because the adhesive would stick to the printing device and rollers (Col. 5, lines 20-22). There is no teaching or suggestion in Rusincovitch to use as the non-adhesive material anything other than ink on a printing machine.

Furthermore, Murai et al., previously cited by the Examiner with regard to claims 30 and 31, teach a composite film comprising an adhesive barrier layer between a base film and a thin inorganic film for the purpose of resisting the passage of water vapor, oxygen or fragrances through food, pharmaceutical or electronics product packaging. Each layer in the article of Murai et al. is necessarily continuous. Murai further teach that an inorganic layer entirely covers an anchor coat layer. The barrier composite films of Murai et al. are non-analogous art. Applicant respectfully requests allowance of claims 75-95.

In view of the foregoing amendment and remarks, Applicant respectfully submits that the Examiner's rejections have been overcome and respectfully requests allowance of claims 1-29, 32-52 and 75-95.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

By 
Heidi A. Boehlefeld
Reg. No. 34,296

1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
(216) 621-1113

APPENDIX

Following is a marked-up version of the amended claim.

27. An adhesive article comprising:

a facestock having a front surface and a back surface;

a continuous layer of adhesive having an upper surface and a lower surface and end edges, wherein the upper surface of the adhesive is adhered to the back surface of the facestock; and

a pattern of non-adhesive material forms embedded into the lower surface of the adhesive layer, each of said non-adhesive material forms having a bottom surface, wherein the bottom surfaces of the non-adhesive material forms are [even with or] above the plane of the lower surface of the adhesive layer.